Annex A

USAID/M Env-Rural Development Program – Environment Program 3 Results 2003-2008

USAID/M ENV-RD	EP3 RESULTS FRAMEWORK	PROPOSED COMMON INDICATORS
RESULTS MODULE (RM)		
EXPECTED RESULTS		
1. Des modes de gestion durable des ressource sont adoptées et appropriées et par les populations		la biodiversité
EP3 1.1 Des actions de développement		
durable sont mises en oeuvre		
RM 1: Reinforce linkages within and between	1.1.1 Les plans communaux de développement et	Nb communes disposent PCD
landscapes through an ecoregional approach (1a)	schémas intercommunaux prennent en compte la	Nb schémas intercommunaux mis en
 Key areas of intervention within eco-regions identified and prioritized Buy-in to a shared vision facilitated and achieved across public, private, CSO and development partners Regional and local actors informed on eco-regional conservation Regional level planning decisions incorporate environmental concerns and understand eco-regional concepts Program implementation is consistent with eco-regional vision and promoted by a local 	dimension environnementale a – Appuyer les communes dans l'élaboration et la maîtrise des PCD « verts » et schémas intercommunaux de développement b – Promouvoir les échanges intercommunaux, régionaux et avec les autres programmes de développement	ouvre
"champion" RM 2: Strengthened rural associations and		
capacity built for farmer led extension (1a)		
 System of farmer organizations in place and 		
actively implementing an "approache terroir"		
System of village para-extension agents in		
place in target eco-regions		
• Farmer organizations and federations linked to		
sources of improved and new technologies		

Improvement of COBAs skills in decision- making, management (planning, technical, organizational and financial) and negotiation		
 RM 3: Agricultural Production Systems and Practices Strengthened (1a) Substantial transformation of village landscapes through widespread adoption of integrated agricultural technologies and practices Successful adoption by farmers of improved rice and hillside agricultural production systems Reduction of tavy Increased farmer incomes through value added processing and timing of sales 	1.1.2 Des alternatives de développement durable sont mis en œuvre dans le cadre des PCD pou réduire les pressions a – Améliorer la gestion des aires défrichées b – Appuyer le transfert de gestion des aires de parcours c – Promouvoir la conservation et l'utilisation durable des eaux et des sols d – Mettre en œuvre des activités alternatives aux pressions dans les zones périphériques des aires protégées	 Ha de forets anciennement défrichées amenages et/ou enrichies Ha amenages avec pertes en sols inférieures a 12 tonnes par hectare par an Other options: Total household production of targeted crops (kg) % of farmers adopting new crops % of HHs planting targeted new crops Total income from sales of farm products
 RM 4: Investment in sustainable natural products increased (1b) Improved commodity chain elements such as increased production quality, better storage and processing, increased access to packaging materials, better marketing techniques used, increased promotional activities; Increased operational efficiency of professional natural product exporters associations; Increased revenue by agribusinesses generated from the export of natural products; Increased number of diversified products produced and marketed 	1.1.3 Les filières de la biodiversité sont valorisées durablement a - Mettre en œuvre des approches de partage équitable des bénéfices b - Réorganiser la gestion des espèces commercialisées et commercialisables	 Nb espèces dont filières dotent de mécanismes de partage équitable de bénéfices Nb espèces commercialisées ou commercialisables dont la gestion et organisée et opérationnelle

RM 5: Rural finance and credit opportunities		
increased for production and commercialization		
of agriculture and forest products in targeted		
intervention areas (1a)		
• Financial institutions are professional in their roles as rural credit managers		
 Village organizations (KH, COGES, etc) in accessible areas are capable of identifying and requesting appropriate lines of credit for the development of their terroir 		
Village organizations in non-accessible areas are capable of self-managing micro-credit programs		
• Financial institutes are capable of reducing the number of delinquent credit clients by 5%		
RM6: Access by the private sector to credit		
instruments that facilitate production and		
marketing and reduce transaction costs (1b)		
• Increased investment in selected agribusinesses		
to expand output, processing and marketing capacity by increasing access to and use of the FIEFE;		
Increased access to credit at the village level		
that adds value to on-farm produce and		
increases agricultural productivity;		
Work to develop the CEM into a private entity		
EP3 1.2 Les ecosystemes forestiers et les		
ressources en eau sont geres de maniere		
durable		
RM 1: Forest Management Vision is Refined and	1.2.1 Les forêts sont rationnellement gérées	Ha des forets faisant l'objet de plan
Integrated at Multiple Levels (2)	a – Affiner le zonage forestier	de zonage
National zoning study verified, refined and		-

 Regional level zoning completed for the 20 agro-ecological zones defined by the Rural Development Working Group (GTDR) Circumscription Forest Service in the priority forest corridors integrating forest vision and zoning into Communal and Village Development Plans in collaboration with the communes actors Geo-referenced forest information system actively linking local, provincial and national environmental databases improved RM 2: Community Based Management and Control of Natural Resource Increased (1a) New GCF/GELOSE agreements singed for areas identified as priority conservation forest by MINENVEF forest zoning/visioning Bush fires reduced to levels that allow for natural regeneration of forest cover in nonagricultural areas Communes in targeted eco-regions consistently qualify as "Communes Vertes" Forest products more readily available for local use Improved conservation of soil and water in local micro-catchments Increased vegetal/forest cover in the ecoregion 	1.2.1 Les forêts sont rationnellement gérées b - Intensifier le transfert de gestion des forêts 1.2.2 La couverture forestière et la capacité nationale de stockage de carbone sont préservées a - Poursuivre la création des Réserves Foncières pour le Reboisement (RFR) b - Promouvoir des actions de reboisement, de mise en défens et d'embrousaillement 1.2.4 Les feux de forêts naturelles diminuent a - Sensibiliser et motiver la population sur la lutte contre les feux b - Renforcer l'application des lois contre les feux de brousse 1.2.5 Les zones humides et réserves d'eau sont	 Ha de forets transférées aux communautés Ha de reboisement Ha mis en défens Ha embroussaille ment Nb comites de lutte contre les feux optionnels % diminution des feux % bassin hydrique faisant l'objet de protection Other options: Seedling/sapling survival rate after 2 years No. hectares protected through NRM
	gérés durablement a - Promouvoir la préservation et la gestion durable des lacs	

	b – Intensifier la protection des bassins hydriques	
 RM3: Forestry Private Sector Professionalized (2) Professionalized forestry private sector in place Organizations, Procedures and Instruments developed to support long term plantation concessions (including provision for private management and/or privatization of stateowned plantations) Forest exploitation permits and actions granted to chartered operators and publicly announced and posted on systematic basis Existing plantations under professional management Sustainably managed round wood supply to forest industry increased Reduction in ratio of licit to illicit wood products marketed New plantations established Alternative domestic and exotic high value species plantations under development as a complement/replacement to customary pine and eucalyptus plantings 	1.2.1 Les forêts sont rationnellement gérées c - Rationaliser l'exploitation forestière d - Promouvoir et appliquer des standards/normes sur les forêts et ses produits (écocertification,) e - Mettre en œuvre des outils économiques et réglementaires complémentaires f -Développer des systèmes de gestion effectifs et durables des forêts	 Ha de forets (plantations) exploitées selon les normes de durabilité % exploitants et opérateurs sensibilises système de fiscalité et délivrance d'autorisation appliques système de gestion effectifs
EP3 1.3 Les écosystèmes sensibles de		
Madagascar sont conservés et valorisés au niveau des aires protégées et sites de		
conservation		
RM1: Reinforce ecological linkages within and	1.3.1 La représentativité des écosystèmes est	Nb aires protegees terrestres
between landscapes by expanding biodiversity	promue	reclassées
habitat conservation (3)	a – Reclasser certaines aires protégées	 Nb nouvelles aires protegees
Define conservation priorities for USAID	b – Créer de nouvelles aires protégées terrestres	terrestres
intervention zones in the regions of Toamasina, Fianarantsoa, and Fort Dauphin	et des sites de conservation c – Développer le système de parcs marins	Nb sites de conservation crées

 Specific number of new Sites de Conservation and Aires Protegees Voluntaire established, financed, and well managed Targeted number of hectares of important biodiversity habitat added to the existing protected area network Representative sample of important habits is protected in conjunction with the protected area network. Policy and legal instruments to promote Sites de Conservation and Aires Protegees Voluntaires. Guidelines for the implementation of Sites de Conservation and Aires Protegees Voluntaires. Plan for establishing future Sites de Conservation and Aires Protegees Voluntaires. Targeted number of hectares of degraded forest and habitat restored 	d – Redélimiter certaines aires protégées	
 RM2: Integrate Planning and Management Systems to Support Field Level Protected Area Operations (3) Strengthened and systematic interaction between Headquarters, Regional Offices, and Sites Increased capacity of Protected Area Directors and staff to plan, seek funding for, and carry out improved management Improved procedures for central and regional technicians to assist PA staff in planning and program implementation Establishment of up-to-date management plans in place for all Pas 	1.3.2 Le maintien de la biodiversité et du processus écologique est assuré a - Assurer le suivi écologique des habitats, espèces, pressions et les mesures de conservation b - Assurer la surveillance et le contrôle c - Mettre en place des infrastructures de conservation et matérialiser le zonage 1.3.3 L'écotourisme au niveau des aires protégées et les sites de conservation est développé et rentabilisé avec le secteur privé a - Améliorer le service aux visiteurs b - Mettre en place / améliorer les infrastructures écotouristiques et de service	 Nb aires protegees et nb sites de conservation dotes de système de suivi écologique (habitats, espèces, pressions) Nb aires protegees et nb sites de conservation dotes de système de surveillance et contrôle opérationnels Nb aires protegees et nb sites de conservation dotes d'infrastructures de conservation requises Nb aires protegees dotées d'infrastructures nécessaires

 Performance-based budgeting practices structured into annual planning and program process for all units Implementation of Conservation Management Plans through the Annual Operations Plans. RM3: Business opportunities for new ventures and new products (1b) Increase revenue generation and reinvestment in the eco-tourism sector and arts and crafts sector 	1.3.3 L'écotourisme au niveau des aires protégées et les sites de conservation est développé et rentabilisé avec le secteur privé c- Réaliser la promotion des aires protégées et des sites de conservation d - Evaluer la gestion de l'écotourisme	Nb. de partenariat
2. La pérennisation au niveau national de la EP3 2.1 Un changement de comportement positif vis à vis de l'environnement est observé	gestion des ressources naturelles et environ	nementales est assurée
RM1: Environmental Knowledge and Information Integrated into Sectoral and Investment Decision Making (2 and 4)	2.1.1 Les informations environnementales appuient le développement durable a - Gérer le tableau de bord environnemental au niveau national et décentralisé et faciliter les échanges d'information	Nb tableaux de bord environnemental en place aux niveaux national et provincial
RM 2: Advocacy for Sustainable Natural Resources management by Civil Society Organizations increased (4)	2.1.2 Les capacités nationales sont renforcées pour une gestion efficace de l'environnement a - Améliorer les connaissances sur l'environnement b - Appuyer et la communication environnementale c - Appuyer l'éducation et la formation environnementale d - Promouvoir des attitudes favorables à la	

	conservation des aires protégées et sites de conservation	
 RM 3: Information, education, and communication contribute to the adoption of alternatives to slash and burn in target intervention zones (1a) Farmer associations/COGES and the farmer extension agents adopt new proposed technical packages against slash and burn practices learned during training and IEC activities Associations participate in the national environment protection movement Associations have and use improved decision making tools Integrated approach implemented with respect to public health themes by rural extension agents 	2.1.2 Les capacités nationales sont renforcées pour une gestion efficace de l'environnement a - Améliorer les connaissances sur l'environnement b - Appuyer et la communication environnementale	 Nb types de support d'information produits Nb sessions de formation , sensibilisation, animation, vulgarisation , éducation Nb régions dans lesquelles programmes de communication environnementale sont mis en œuvre Nb régions dans lesquels programmes d'éducation relative à l'environnement mis en œuvre Nb. aires protegees et nb. sites de conservation dans lesquelles programmes spécifiques d'éducation environnementale sont mis en œuvre au niveau des zones périphériques
EP3 2.2 Les bases de financement durable d'actions de gestion rationnelle des ressources naturelles et de l'environnement sont établies RM1: Operationalize Sustainable Financing Mechanisms through Biodiversity Trust Fund and Conservation Partnerships (3) • Percentage of requests funded on time • Dollars passed through the Trust Fund Sinking Fund • Number of outside investments for biodiversity conservation	2.2.1 Des instruments spécifiques de pérennisation financière sont développés a - Mettre en place un « trust fund » pour les aires protégées b - Développer les autres instruments de financement et optimiser l'interface avec les autres secteurs	 Trust fund en place à partir de la lere année, générant pour le fonctionnement du réseau au moins \$2 m en 2007 Nb. secteurs au niveau desquels recettes environnementales issues des interfaces en croissance (??)

	T	
 Total dollar value of outside investments 		
• Number of new financing mechanisms adopted		
and operational		
Value of funds from new mechanisms being		
provided to the National Forestry Fund (FFN/FFR),		
the Biodiversity Trust Fund, and Tany Meva		
RM2: Transparent and Effective Management of	2.2.2 La fiabilité et la transparence du système de	 système de gestion juge satisfaisant
Forest Sector Budgets and Planning Processes (2)		• indice d'efficacité de gestion en %
Annual audit results from independent audits of	gestion des fonds et de suivi est assurée	 indice d'efficacités de suivi-
FFN/FFR accounts improve each year		evaluation en %
Total value of funds passed program	a - Améliorer les systèmes de gestion existant	
implementation fund through to CIREFS and	b - Développer les capacités de gestion et	
DIREFs	d'administration	
 Percentage of CIREFs and DIREFs provided 	c - Renforcer la coordination des activités	
funding which receive two or more cycles of	d - Optimiser la structure de coût des agences	
funding	d'exécution	
Total value of additional funds leveraged		
through the program		
• Increase in percentage of forest fees collected		
Performance based monitoring system		
established in all CIREFs and DIREFs		
RM3: Support ANGAP to Implement Selected	2.2.3 Des systèmes de financements locaux sont	
Protected Area operations (3)	en place	
Number of requests from ANGAP for	a - Développer les mécanismes de taxation	
supplemental funding which meet requirements	locales	
and are based on Annual Operational Plans	b - Appuyer la mise en place de fonds	
Number of requests funded	d'investissements locaux durables	
Percentage of requests funded directly related		
to field-based conservation		
Total value of activities funded per year		
EP3 2.3 Une meilleure gouvernance		
<u> </u>		•

environnementale est en place		
RM1: Environmental Impact Assessments Used	2.3.1 La dimension environnementale est	Code environnemental et ses
Effectively to Protect Threatened Habitat	internalisée dans les politiques de développement	instruments d'application officialises
 Ministry of Environment and ONE ensure effective application of MECIE law and integration of environmental considerations into socio-economic investments decisions Sector policies include an environmental dimension and new legislative are subject to an Environmental Assessment Increased number of public and private investments are in compliance with environmental safeguards and mitigation measures, as stipulated in corresponding EIAs Strategic EIAs improve consistency of environmental legislation and procedures across sectors and adhere to international conventions Public participation provides input and monitors EIA/PREE process EIA procedures and requirements are communicated to the private sector in a simplified, service oriented and coherent manner. 	du pays a - Développer des instruments de gestion et mettre en cohérence les textes et procédures b - Assurer la compatibilité des investissements avec l'environnement c - Assurer le suivi, le contrôle environnemental, et le mécanisme de gestion des plaintes d - Intégrer la dimension environnementale dans les politiques d'aménagement du territoire e - Développer la politique énergétique et la politique de gestion durable de l'eau	 % projets d'investissement intégrant la dimension environnementale nb secteurs dont suivi et contrôle environnemental effectifs (80% de traitement effectif des plaintes) Politique et no. schéma d'aménagement du territoire intégrant la dimension environnementale Politiques et schémas énergétique et de gestion de l'eau intégrant la dimension environnementale
RM2: Strategic Planning, Coordination and Information Service within the Ministry of Environment, Water and Forests (2)	2.3.3 L'administration de l'environnement est renforcée a – Renforcer la capacité du Ministère de	% agents formes sur nouvelles techniques de gestion de l'environnement
National authorities and donors have	l'environnement	• % part honore de la contrepartie
information on environment and natural resources activities which lead to improved coordination and coherent programming of	c – Assurer l'interface avec les Ministères du plan (PIP) et des finances (RPI, taxes,)	nationale dans le financement • Carte de feux établis par année
activities	2.2.2 La fiabilité et la transparence du système de	

 Information on mining and forest resource exploitation activities improves transparency of the permitting process and good governance of natural resources Forest cover and bush fire evolution dynamics are documented, better understood, and used by decisions makers in formulating policy Monitoring and good governance of natural resources is improved through decentralized 	gestion des fonds et de suivi est assurée a - Améliorer les systèmes de gestion existant c - Renforcer la coordination des activités d - Optimiser la structure de coût des agences d'exécution 2.3.2 Le dispositif institutionnel est amélioré b - Développer le partenariat avec les structures environnementales au niveau des secteurs et les	
information systems at all levels	collectivités décentralisées	
RM3: Forest Service Restructured and	2.3.4 Le service forestier est renforcé	% agents formes sur nouvelles
Strengthened (2)	a – Procéder au renforcement de	techniques de gestion forestière
 Clearly defined and formally approved job descriptions and attributions for forest service staff at all levels Well-trained staff in place and system for inservice training implemented Staff attributions reflecting leverage of statefunded positions through transfer of responsibility to Communes, Community Based Organizations, private sector organizations, and NGO partners Decentralized administrative and financial management systems contributing to efficient conservation implementation Public and private sector forestry training institutions selectively strengthened Field offices better equipped to play newly defined roles 	l'administration forestière c – Renforcer la capacité des intervenants dans la gestion des forêts	
RM3: Good Governance of Natural Resources	2.3.4 Le service forestier est renforcé	Rapport national sur la gouvernance
through Effective Control of Forest and	d – Elargir le dispositif de veille et d'information	forestière publie
Biodiversity Utilization (outside PAs) (2)	initiée par l'OSF	Contrôle forestier effectif

		T	
•	CITES Management Authority able to establish	e – Appuyer le contrôle forestier	
	viable species management plans, quotas, and		
	efficiently and adequately monitor and report		
	on permits and activities to the CITES		
	Secretariat		
•	Reduction in illegal exploitation of forest		
	resources		
•	Reduction in the number of irregular permits		
	given out		
•	Increased understanding of trade related		
	activities		
•	Increased seizures of illegally harvested flora		
	and fauna at ports, airports, and routes		
•	Increased number and area covered by control		
	activities		
	Control activities carried out in a coordinated		
	manner with Police, CIREF, and communal		
	representatives		
	Transparent permitting established and		
	operational		
	Mining activities in forests reduced		
	Permit tracking system established		
	• •		
•	Natural resource utilization decisions based on		

Key: (1a) – Eco-regional Initiatives focused in the regions of Fianarantsoa, Tamatave, and Fort Dauphin (Pink)

(1b) – SO7 Commercial Private Sector Support (Jaune)

knowledge from information management

system

- (2) RFP for Forestry Sector Support Contract (Vert)
- (3) RFA for *Biodiversity* Cooperative Agreement (Bleu)
- (4) SO4 Democracy and Governance Support (Cadre noir)

Annex B

USAID/Madagascar Integrated Strategic Plan (2003-2008) Results Framework

USAID Madagascar Integrated Strategic Plan

Goal: Sustainable and Inclusive Economic Development Indicators: 1. gdp per capita; 2. poverty rate; 3. TI corruption perceptions ranking; 4. protected area; 5. forest cover; 6. stunting, children under 5; 7. child/maternal mortality rates; 8. Human Development Gender Index

Strategic Objective 4:

Governance in Targeted Areas Improved Strategic Objective 5: Use of Selected Health Services and Products Increased, and Practices Improved Strategic Objective 6:

Biologically Diverse Forest Ecosystems Conserved Strategic Objective 7:

Critical Private Markets Expanded

USAID Madagascar Integrated Strategic Plan

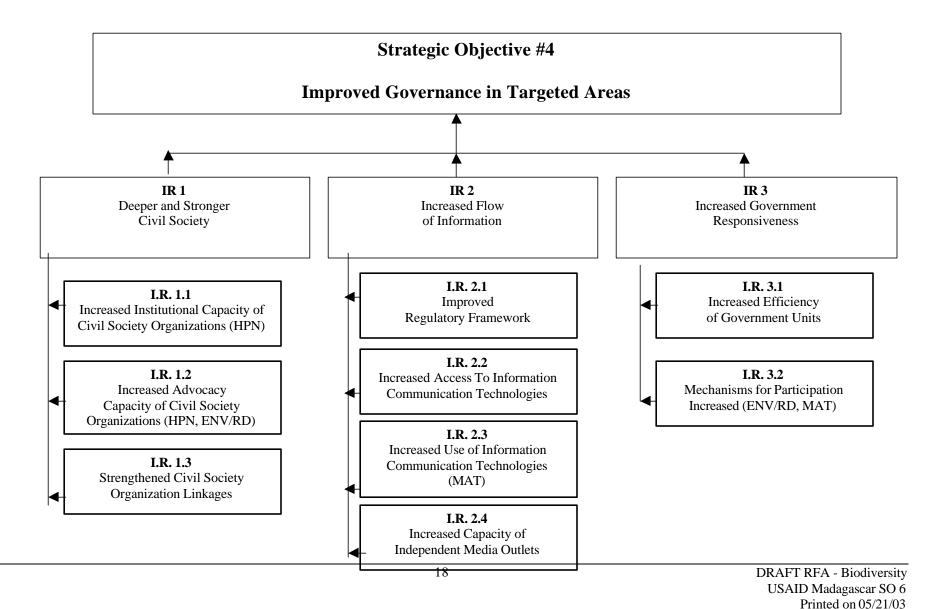
Sustainable and Inclusive Economic Development

Use of Selected Health Services and Products Increased, and Practices Improved Biologically
Diverse
Forest
Ecosystems
Conserved

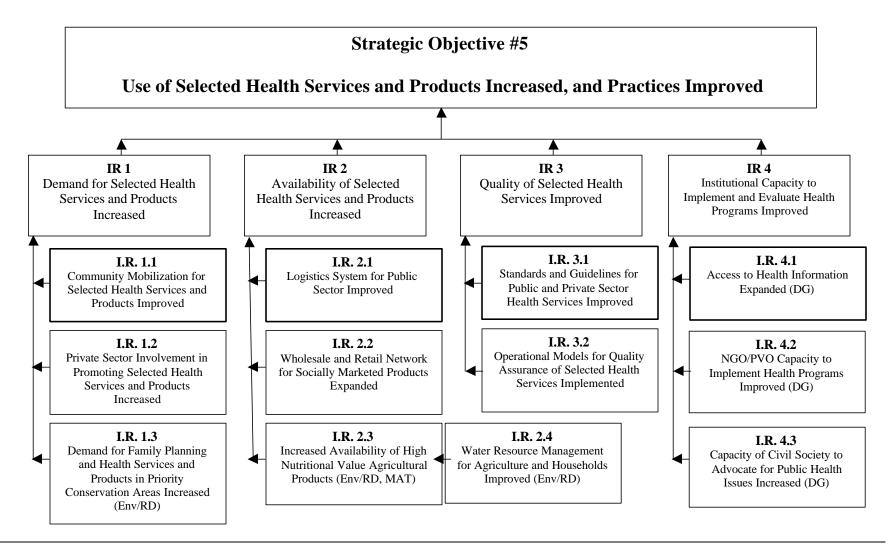
Critical Private Markets Expanded

Governance in Targeted Areas Improved

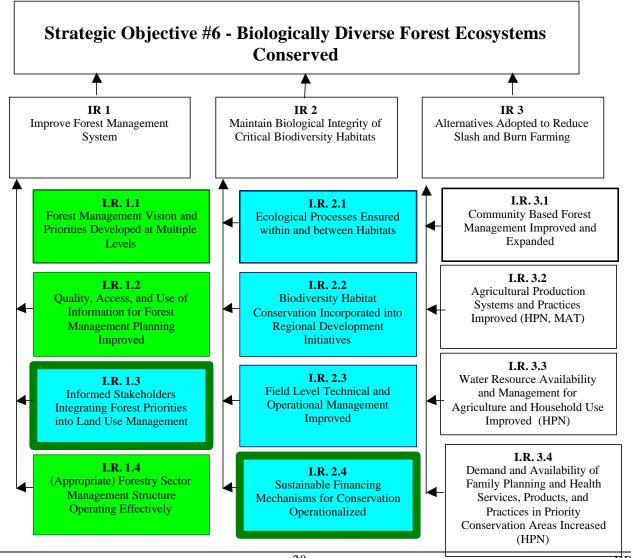
USAID/Madagascar Democracy and Governance (DG) Results Framework



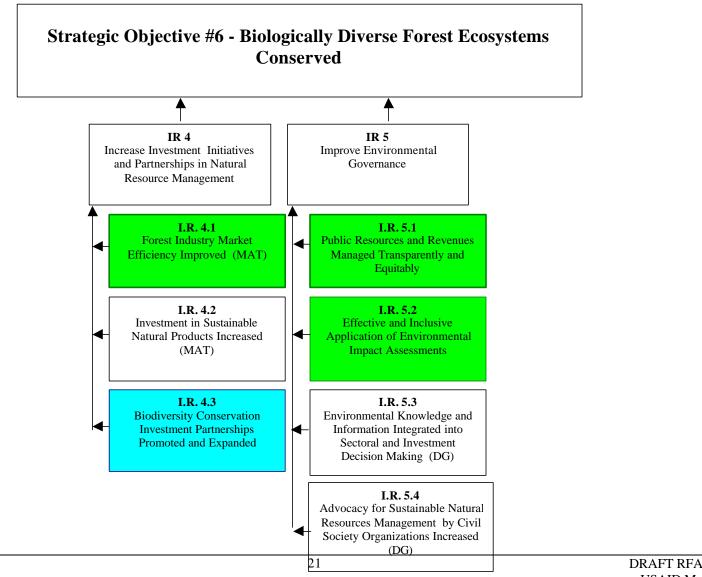
USAID/Madagascar Health, Population and Nutrition (HPN) Results Framework



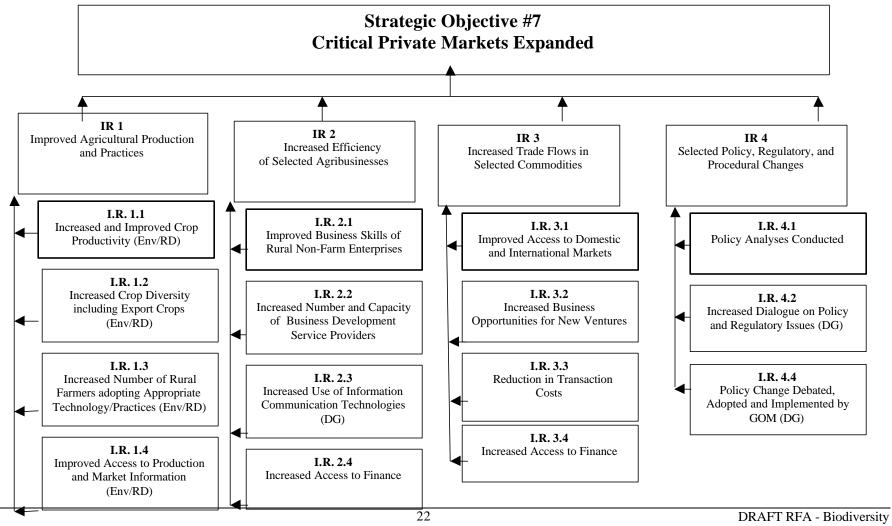
USAID/Madagascar Environment and Rural Development (Env/RD) Results Framework



USAID/Madagascar Environment and Rural Development (Env/RD) Results Framework (con't)



USAID/Madagascar Agriculture and Trade (MAT) Results Framework



Annex C

Environment Program Stocktaking Exercise/Lessons Learned

Annex C: Environment Program Stocktaking Exercise/Lessons Learned

USAID/Madagascar undertook a stocktaking exercise in 2001 and 2002. Based on the recommendations of this exercise, USAID identified the following as the strategic orientations for the future of the environment program:

- Regions and decentralization will be political operative.
- Focus on regional and communal policy and planning
- Limited geographical focus within ecoregional/multi-sectorial program
- Reaching out and increasing the diversity of partners ships to community groups, civil society, private sector, regional and communal actors
- Shifting from "tool development" to "client and "service focus
- Moving resource allocation decisions close to target
- Building democracy through environmental accountability
- Continuation of eco-regional approach building on lessons learned to protect biodiversity habitats inside and outside the PA network
- Increased focus on forest management
- Building private sector and communities based approaches into NRM
- Continued work with subsistence farmers to offer alternatives and incentives for abandoning destructive practices
- Work with civil society and regional actors to improve NR governance

Some of the key lessons learned are the following:

1. Ecoregional Conservation and Development Approach

- The ecoregional approach to conservation is still a valid approach, and one that should be continued through the next phase of USAID support
- Sustainability of ecoregional conservation and development is key. How can the participation of partner organizations and institutions in the regions be ensured and promoted for the long term? This is a question which will need to be tackled in the future
- Partnership is critical to the success of ecoregional planning. Good coordination, communication, and action amongst partners are needed to ensure the full buy-in of all actors.
- To ensure the implementation and long-term sustainability of ecoregional conservation, there needs to be a "champion organization", one which continually has the ecoregional vision in mind and promotes and pushes that vision.
- Defining a vision, which has the support of the local, regional, and national level actors is necessary for ecoregional conservation to succeed.
- Once the vision has been determined, priorities need to be set, which will then help to define the needed areas of intervention to achieve the vision.
- There are multiple ways in which priorities setting and visioning can be done, and is being done by partners. There is no need to determine which way is right and wrong, and all current approaches being implemented with USAID implementing partners are compatible. The approach most suitable to the partner or situation can be used.

2. Conservation of Critical Habitats

 Autonomous structure for National Parks Network provides an efficient management model

- Landscape, ecosystem or ecoregional conservation provides better model for conserving biodiversity within and outside PA network
- Relationship between people and parks is key
- Partnerships are vital between National Parks Service and specialized rural development organization
- PAs act as the core of conservation activities, but there is a need for more innovative
 approaches to PA management and expansion that takes into account biodiversity
 priorities and information with new approaches and conservation measures not relying on
 establishing more parks

3. Sustainable Forest Use

- Forest management cannot be dissociated from other sectors, particularly agricultural
- Need for sustained and comprehensive forestry program that addresses institutional, governance, and forest management issues and includes involvement of social scientists
- Importance of maintaining focus on local communities as primary users of forestry and biodiversity resources with an economic lens
- Essential to replicate and "scale up" CBNRM activities at field level by "getting our feet dirty"
- Need to ensure that community forest activities are linked with rural development initiatives

4. Community Centered Interventions to reduce Slash and Burn Practices

- There are no simple agriculture packages due to the diversity of the ecoregions, social structures, and agricultural practices
- Positive link between maintaining forest cover and protecting watersheds
- Poverty is a serious constraint in addressing *tavy*
- Shift to ecoregional approach to work at a broader scale could not be met by NGOs
- Need for a service oriented NGO capacity building program that simplifies grants and reporting processes
- Resources needed for both capacity building and operations to develop the skills of local actors

5. Involvement of Private Sector in natural resources management

- Importance of systems approach rather than solely a commodity driven approach within Malagasy agricultural system
- Transport is an enabler to opening markets, but it is an insufficient condition to ensuring forest protection
- Enterprise development takes time Madagascar does not have strong entrepreneurship and trade skills
- Increasing awareness toward businesses opportunities and openness to private sector favor private sector development
- "Market driven" approach does not always correspond with conservation priority zones
- Ecotourism has enormous potential for development in Madagascar, but the solutions are complex and multi-sectoral, and therefore difficult to improve

6. Environmental Policies and Tools

- Programmatic donor coordination facilitates implementation and maintains focus on policy level issues
- Importance of training to increase understanding of usefulness of EIA and environmental economics for sustainable development
- Usefulness of GIS information to allow forward movement on tool development (e.g. Forest zoning plan)

Annex D

Description of Environment/Rural Development Strategic Objective and Intermediate Results

Annex D: Description of Environment/Rural Development Strategic Objective and Intermediate Results

"Biologically Diverse Forest Ecosystems Conserved" is the new environment and rural development strategic objective for FY 2003 - 2008.

As demonstrated over the last ten years, there are inextricable links between natural resources, economic growth, agricultural productivity, water quality and availability, poverty, health, and governance. It is clear that forest ecosystems are essential to the long-term economic, healthy, and environmental well being of local populations in Madagascar, the national economy, and the earth's biosphere as a whole. Therefore it is critical, in addressing the problems of Malagasy people, to focus more holistically on forest ecosystem management over the next five years. This will deepen the Mission's efforts in the environment domain while increasing the emphasis on conservation and sustainable use of forest and natural resources to empower, enrich, and elevate people out of poverty. Working with people closest to the natural resource base will be the nexus of the new Environment/Rural Development (Env/RD) SO.

A multifaceted program will be pursued to achieve the new SO—one which continues the current successful ecoregional (i.e., biogeographical areas which represent distinct assemblages of natural communities and share a majority of species and ecological processes) approach. The strategy's intent is to "conserve biologically diverse forest ecosystems" by improving sustainable natural resource management and environmentally sensitive development. The SO's five components are based on accepted approaches to ecoregional conservation and development.

Illustrative Indicator for SO 103:

Percent change in forest cover.

Intermediate Result 1: Improve Forest Management System

Ecological services provided by forest ecosystems are extremely valuable benefits. These services include maintaining and controlling water flow and quality, soil formation and nutrient cycling, pest and pathogen control, pollination, and climate regulation. Ignoring or undervaluing these can increase pressure for land conversion—a result based on the mistaken perception that agriculture or other land use practices would be a more valuable land use. A strategic vision for the preservation of forest ecosystems must be integrated into the decision-making process of all stakeholders, and must be implemented at the field level.

Satisfying the broad range of human and ecological demands requires new approaches to the stewardship of Madagascar's forests. Forest management will be based on two key premises:

- forests must be managed to fulfill a range of environmental, social, economic, and cultural functions, rather than serving sole interests such as logging or conservation; and
- forest products outside of primary forest exploitation must be made more profitable, which will tend to reduce the pressure for primary forest timber products.

To help facilitate the development of a forest management vision, a number of activities will take place under the new ISP. USAID will assist in establishing an effective system and structure responsible for forest management. Support will be provided to ensure that the forest service is able to transfer its vision to the field through national, regional, and

communal forest zoning plans. Along with establishing an effective institution, USAID will help implement a system to provide adequate resource information on which to base decision-making: Skills and infrastructure will be developed to ensure that information is gathered, analyzed, and provided in a way to allow use by decision-makers at all levels. Finally, the flow of information and dialogue with partners will be facilitated to ensure that the priorities for key forest ecosystems are heard, understood, and integrated into local, regional, and national-level planning.

Illustrative Indicator for IR 1:

• 20-year management vision defined and implemented through national and regional zoning plans.

IR 2: Maintain Biological Integrity of Critical Biodiversity Habitats

Ensuring that core biodiversity areas are protected is critical to conserving forest ecosystems. The program will strive to reach the internationally accepted measure for how much of a country's critical habitats should be protected, which is that an adequate percentage (usually 10%) of habitats is under conservation status. To achieve this, USAID will provide support to implement the strategic management plan for the protected areas network developed with past USAID support.

One aspect of protecting critical habitats is to maintain the ecological processes within and between habitats. A total of 90% of the country's biodiversity lies within forest areas, of which less than 8% is represented in the protected area network. Moreover, many of Madagascar's highest priority biodiversity areas fall outside the network. The program will use new and innovative mechanisms, such as conservation contracts and regional protected areas, to help ensure that these high priority areas are maintained.

Ecological restoration and reforestation will be used to re-establish connectivity between habitats where ecological processes have been destroyed. Another aspect of conserving critical habitats is to ensure that biodiversity habitat management plans are integrated into landscape planning. When local, regional, and national level development plans are established, the needs for protecting these critical habitats will be integrated to ensure that conservation goals and development activities are complementary.

Within the protected area network, program activities will promote continued institutional development, while also focusing on developing the capacity to implement field-level management activities. These activities will include park outreach and education, monitoring and research, infrastructure development and maintenance, habitat maintenance, and integrating protected-area management activities and local and regional development.

Continued support in the area of "sustainable financing" is also critical; public resources are insufficient. A multi-pronged approach will be pursued here: (i) restructuring of the environmental institutions to enable them to be more financially and institutionally secure; (ii) exploring new avenues for securing increased and sustainable revenue generation for the environment, which might include carbon sequestration, private sector resources, green taxes, etc.; and (iii) pursuing the establishment of a biodiversity/protected areas trust fund.

Illustrative Indicator for IR 2:

• Area of selected habitats under conservation management.

IR 3: Alternatives Adopted to Reduce Slash and Burn Practices

The largest threat to the remaining natural forests of Madagascar is slash and burn agriculture (tavy). Tavy is the result of a number of social, cultural, economic, and biological factors. Local communities and forest dwellers are working to reclaim their rights to use and manage the forestlands. These critical landscapes include biodiversity-rich forest ecosystems, water catchment areas, land use systems where agriculture has high potential for sustainable growth, marginal lands with valuable non-agricultural resources that are under threat of degradation, and lands that can support economic diversification.

USAID's efforts to reduce slash and burn farming will continue to be based on reinforcing synergies between natural resources management, agricultural productivity, food and financial security, economic growth and poverty alleviation, health, and natural resource sustainability. The approach will address socio-economic factors that increase human pressure on highly valuable forest corridors in two USAID priority ecoregions. It will help to alleviate poverty while improving food security in both regions. USAID will build on foundations established by the current ecoregional conservation program, which has demonstrated that slash and burn can be halted, and expansion of lands encroaching on priority ecosystems limited, through agricultural intensification and income-generating activities based on sustainable use of natural resources.

Farmers and their communities are the common element in these desired conditions, so USAID will focus on community-level "farming systems" interventions. This will increase farmer incomes and create strong economic, ecological, social, and geographical linkages between rural development and reduction of pressures on forest corridors. The approach will focus on inter-related interventions based on sustainable land use planning and management.

The first of these interventions is community-based forest management. Contracts will continue to be established with local communities to transfer management of designated forests with well-defined resource management plans, access, and use. Alternative energy sources and technologies, such as community woodlots, will be explored to reduce dependence on harvesting fuel wood from primary forests. Second, agricultural productivity will be increased by encouraging farmers to adopt approaches that are more sustainable and profitable than the slash and burn system. Emphasis will be placed on empowering farmers to be self sufficient. This will be done through a "farmer-to-farmer" approach using ecologically friendly techniques and by fostering market linkages between producer groups and agribusinesses (in collaboration with the Mission's Agriculture and Trade SO). Third, community land use management plans will build-in the protection of micro-level water catchments, thereby improving water quantity and quality. Finally, linkages will be established with the Mission's health sector SO to address a number of community health concerns, as well as the over-arching need to address population growth around forest areas. This will be achieved by increasing the demand and availability of family planning and health services, products, and practices.

Illustrative Indicator for IR 3:

• Decrease in area and incidents of new slash and burn agriculture sites in priority areas.

IR 4: Increase Investment Initiatives and Partnerships in Natural Resource Management

In order to protect Madagascar's unique biodiversity, it is necessary to facilitate the involvement of the private sector: under this IR, economic benefits will be emphasized and investments in natural resource management encouraged. Forest lands and other natural resources will be identified with a view toward capitalizing on their potential for production of goods, maintenance of environmental services, generation of jobs and public sector revenues, contributions to exports, and associated multiplier effects.

Forest-based industries such as plantations will be supported as a way of enhancing sustainable use of forest assets and reducing pressures on the natural forests. Assistance will be focused on improving methods of management, harvesting, extraction, utilization, recovery of wastes, and value-added processing of forest products. There will be an emphasis on training field-level forest workers in more efficient forest production and processing methods, and exploring use of wood residues to create biomass energy for value-added processing of forest products.

USAID also plans to support businesses in the natural products sector, through production of quality natural products for domestic and international markets. This will consist of promoting the environmentally sensitive collection, production, and processing of indigenous and introduced natural products such as essential oils and spices (as well as such crafts as raffia woven products). Continued support will be provided to the ecotourism sector, too, as a way to actively engage the private sector in the conservation agenda. Other areas of collaboration to be pursued will include emerging carbon sequestration/carbon credit trading options, eco-certification of forest products, biotechnology, and bio-prospecting. USAID will also play a pro-active role in identifying ways to engage other institutions, including zoos, museums, and universities, to invest in Madagascar's biodiversity.

Illustrative Indicator for IR 4:

• Increase in number of investments contributing to natural resource management.

IR 5: Improve Environmental Governance

Forests are amazingly busy places. Carbon sequestration, aesthetic and religious values, agents of soil and water protection, biodiversity in all its aspects: these are things not transacted in markets. Even though they carry no market price as such, these forest "values" are essential to Malagasy society. Thus, government must intervene to establish rules of the game and incentives that encourage sustainable natural resources management.

Activities within this IR will promote the involvement of all interest groups to improve environmental governance and stewardship. Public institutions must demonstrate that they can manage natural resources and revenues transparently, particularly forest and mining resources (e.g., gemstones). Law enforcement must be improved. The government must demonstrate that public forests can be managed for national benefit, rather than for private gain. Incentives and disincentives must be put into place. Communities must perceive that the government is making decisions that favor their interests rather than the influential segments of society. Finally, natural resource observatories, local monitoring measures, and independent "watchdogs" measures must be promoted.

Checks and balances will be enhanced by: (i) facilitating *participation* in environment management through greater information flow and communication with communities about their role as environmental watchdogs; (ii) educating the public about its role as an *advocate* for better environmental management; and (iii) educating development actors about the benefits that arise from an effective *partnership* with environmental institutions through use of environmental impact assessments and information for decision-making.

Annex E

 ${\bf Maps\, -\, Geographical\, Priorities}$

USAID Madagascar Intervention Zones

Env/RD Intervention Zones

Ag/Trade Intervention Zones

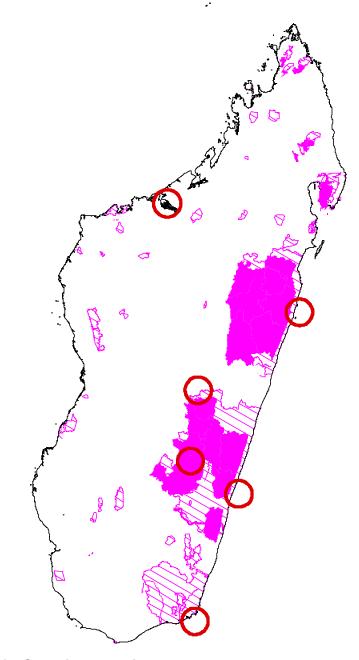


Figure 1. Map of USAID intervention zones.

Forest cover

Dry Forest

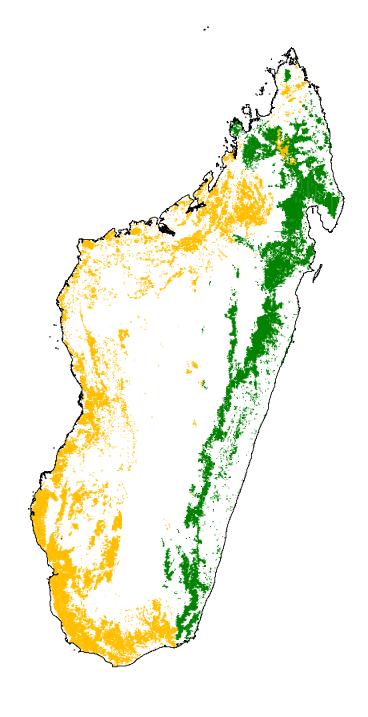


Figure 2. Map of forest cover and type in Madagascar.

Annex F

Bibliography of Key Background Documents

Annex F: Bibliography of Key Background Documents

General

- Madagascar Integrated Strategic Plan 2003-2008, November 2002, USAID/Madagascar
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- Mission Performance Plan, 2002, US Mission to Madagascar
- Interim Country Assistance Strategy for the Republic of Madagascar, November 2002, Document of the World Bank, Africa Region
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- Madagascar Agribusiness and Forest Industry Assessment, November 2002, ARD
- Agricultural Production, Agricultural Land and Rural Poverty in Madagascar, September 2001, J. Randrianarisoa and Bart Minten, Cornell University and FOFIFA
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Web site:

- The Secretariat Multi-Bailleurs (SMB) for the Environment, Rural Development and Food Security web site http://www.smbmada.net
- The Plan d'Action Environnementale Madagascar web site http://www.pnae.mg: access to documents related to MECIE, Politique National de l'Environnement, biodiversity, Tableau de Bord Environnemental, success stories in the national Environment Program (EP)

- USDA Forestry Service web site http://www.fs.fed.us/global/
- Madagascar Environment Program Review (May June 2002): A series of six mini-workshops on "Lessons Learned from the Environment Program and Future Perspectives" in collaboration with IRG under the FRAME Task Order. The purpose of these mini-workshops is to capture the last twelve years by highlighting the key milestones of USAID's support to the EAP; key lessons learned and future perspectives. FRAME web site http://www.frameweb.org/Partnerpages/
- Under USAID/Madagascar's Natural Resources Office's strategic goal of creating biologically diverse ecosystems in priority conservation zones, International Resources Group provided technical assistance, training, and grant administration for a series of activities which involved establishing sustainable financing mechanisms; implementing adaptive management practices; developing and applying environmental policies, legislation, and procedures; and bolstering strategic planning, communication, management, and result monitoring. IRG helped create a sustainable finance commission with representation from the public and private sectors, NGOs, and donors. This commission was setting the direction for trust fund development and other finance mechanisms. IRG web site http://www.irgltd.com
- Conservation International's (CI) mission is to conserve the Earth's living natural heritage, our global biodiversity, and to demonstrate that human societies are able to live harmoniously with nature. USAID/Madagascar's MIRAY Program awarded a sub-grant to CI to carry out the following program objectives: Ecoregion-Based Conservation and Development to promote a landscape approach and strengthen capacity for adaptive management, and to improve management of critical biodiversity habitats. CI home page is located at www.conservation.org
- Since its inception in 1961, WWF has worked to conserve nature and ecological processes through a combination of action on the ground, national and international advocacy work to establish appropriate policies, and international campaigns to highlight and demonstrate solutions to crucial environmental problems. USAID/Madagascar's MIRAY Program awarded a sub-grant to WWF to carry out the following program objectives: Ecoregion-Based Conservation and Development to promote a landscape approach and strengthen capacity for adaptive management, and to improve management of critical biodiversity habitats. WWF home page is located at www.panda.org
- The primary assignment of MIRAY, a USAID/Madagascar-funded program for supporting the environment plan of action and implemented by an agency consortium (CI, PACT and WWF), is to promote a sustainable conservation of biodiversity and natural resources as part of a landscape development based on a process of consultation, participation, empowerment, partnership and institutional building. To know more about the MIRAY Program, browse in Pact site web www.pact.mg/MIRAY. Pact home page is located at www.pactworld.org
- Chemonics International carries out USAID/Madagascar's Landscape Development Interventions Program. This project works with people living in the broader landscape not just those near national parks or other protected areas to enhance standards of living and protect biodiversity. Chemonics is working to repair, stabilize, and provide for continued maintenance of rural farm-to-market roads in priority biodiversity conservation zones, and to repair wharves and warehouses at the Manakara port. The project works closely with road user associations to provide for road maintenance. Chemonics is also helping to rehabilitate and stabilize the Fianarantsoa-Cote-Est rail line, damaged by cyclones in 2000. The team is designing, managing, and supervising engineering and construction services to rehabilitate bridges, tunnels, culverts, and other damaged structures. Chemonics International home page is located at www.chemonics.com